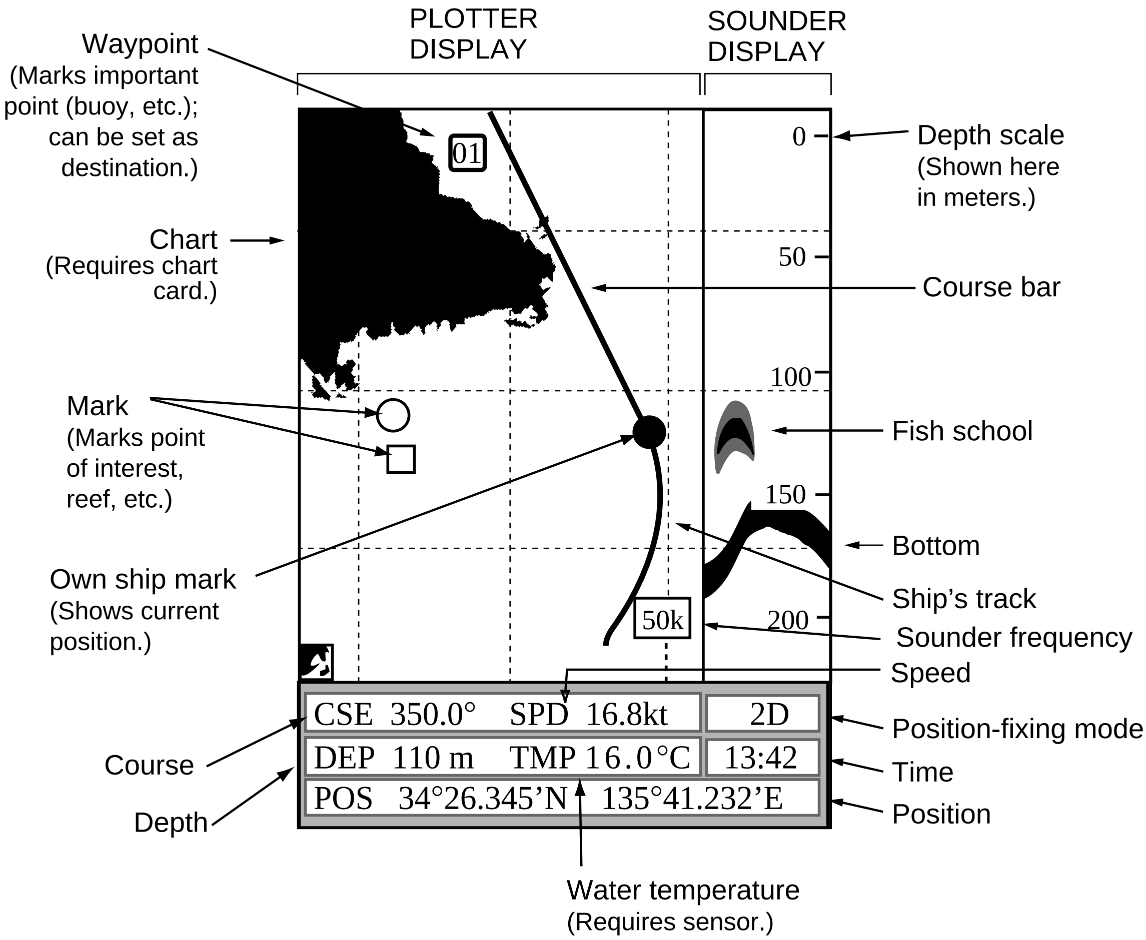
FURUNO

GP-1610CF
Color GPS Plotter Sounder

The purpose of this Operator's Guide is to provide the basic operating procedures for this equipment. For more detailed information see the operator's manual.



Sample plotter/sounder display

The GP-1610CF is a fully integrated color video sounder, color video plotter and GPS receiver. To find position, simply turn on the power. As your boat moves its track is inscribed on the display.

⚠ SAFETY INSTRUCTIONS

⚠ WARNING



Do not open the equipment.

Hazardous voltage which can cause electrical shock, burn or serious injury exists inside the equipment. Only qualified personnel should work inside the equipment.

Do not disassemble or modify the equipment.

Fire, electrical shock or serious injury can result.

Turn off the power immediately if water leaks into the equipment or the equipment is emitting smoke or fire.

Continued use of the equipment can cause fire or electrical shock.

Do not place liquid-filled containers on the top of the equipment.

Fire or electrical shock can result if a liquid spills into the equipment.

Do not operate the equipment with wet hands.

Electrical shock can result.

Keep heater away from equipment.

Heat can alter equipment shape and melt the power cord, which can cause fire or electrical shock.

⚠ CAUTION

Use the proper fuse.

Use of a wrong fuse can result in fire or permanent equipment damage.

GPS position and velocity accuracies are controlled by the U.S. Department of Defense. Position may be degraded up to 100 meters.

Do not use the equipment for other than its intended purpose.

Personal injury can result if the equipment is used as a chair or stepping stool, for example.

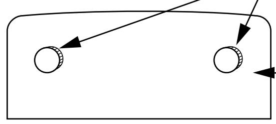
Do not place objects on the top of the equipment.

The equipment can overheat or personal injury can result if the object falls.

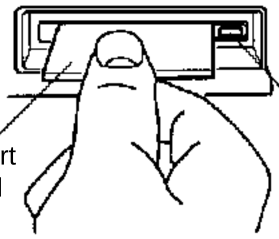
Inserting a Chart Card

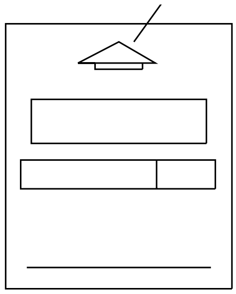
① Turn off the power.

② Open the chart card drive cover at the bottom of the display unit.



③ Insert chart card label side up, arrow forward.





④ Close the chart card drive cover.

To eject a chart card:

① Open the chart card drive cover.

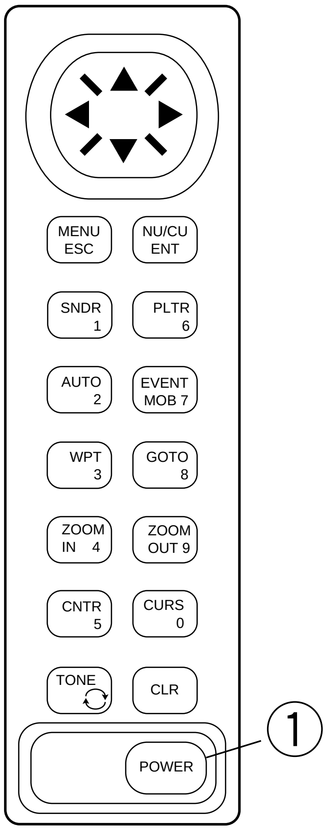
② Press the EJECT button.

Note: If no chart card is inserted a general world map appears.

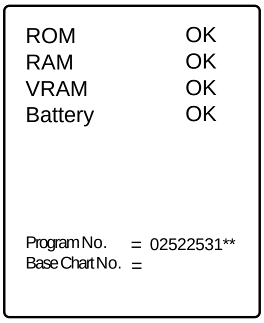
Displaying the Plotter Picture

Press the POWER key to turn on the equipment. A beep sounds and shortly thereafter the plotter display appears.

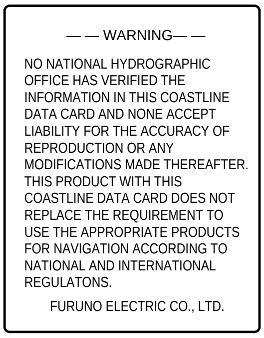
① Press the POWER key.



Results of self-test; displayed for about one second.



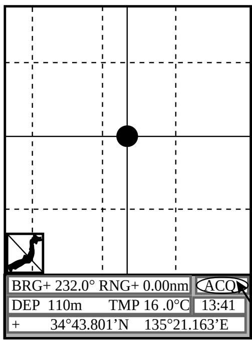
Warning on chart card usage; appears for about one minute.


——WARNING——

NO NATIONAL HYDROGRAPHIC OFFICE HAS VERIFIED THE INFORMATION IN THIS COASTLINE DATA CARD AND NONE ACCEPT LIABILITY FOR THE ACCURACY OF REPRODUCTION OR ANY MODIFICATIONS MADE THEREAFTER. THIS PRODUCT WITH THIS COASTLINE DATA CARD DOES NOT REPLACE THE REQUIREMENT TO USE THE APPROPRIATE PRODUCTS FOR NAVIGATION ACCORDING TO NATIONAL AND INTERNATIONAL REGULATONS.

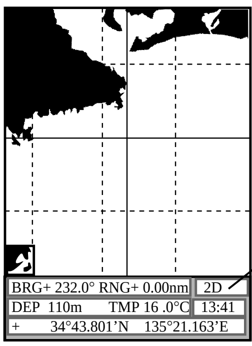
FURUNO ELECTRIC CO., LTD.

Plotter display (Position being calculated.)



ACQ means acquiring satellite; position is not reliable.

Plotter display (Position now reliable. Chart appears about 20 sec after power is turned on. At initial power on it takes two minutes.)



2D or 3D means position is reliable. Confirm this indication before using the equipment.

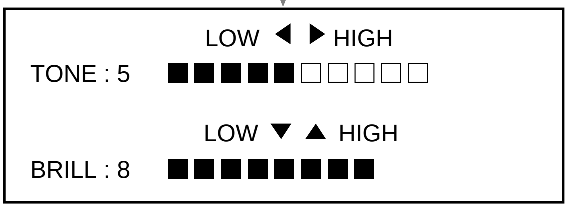
Adjusting Tone and Brilliance

Adjust tone or brilliance within 10 seconds, otherwise the display will be erased.

Ten levels of tone are provided.

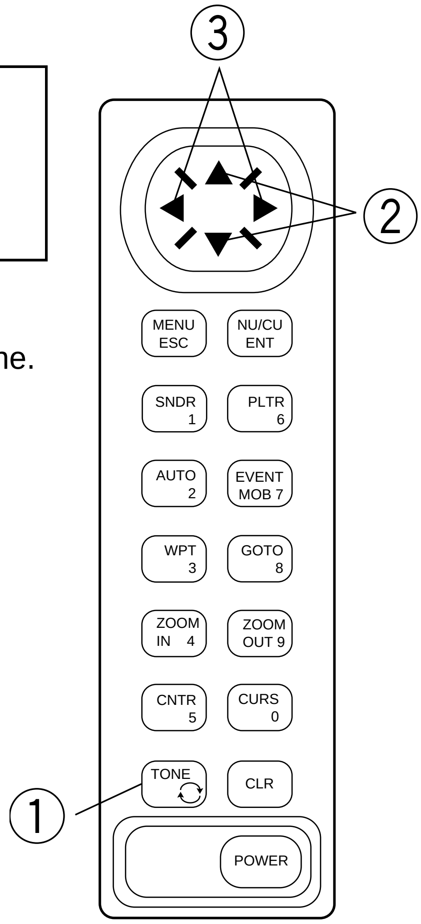
Eight levels of brilliance are provided.

① Press the TONE key.



② Press ◀ or ▶ to adjust tone.

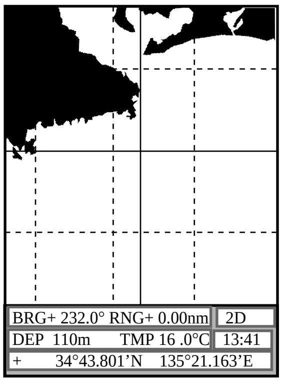
③ Press ▲ or ▼ to adjust brilliance.

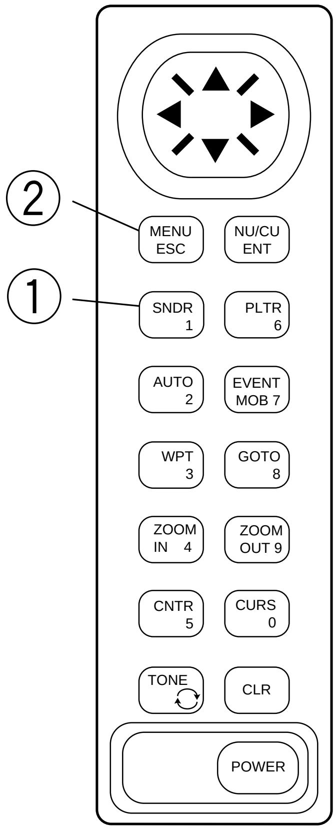


Changing the Display

There are ten displays. Below is the procedure for how to display the three most common displays.

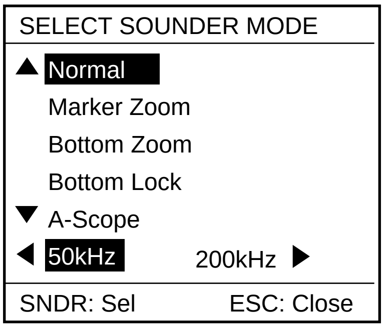
The plotter display is currently shown. This display shows chart, ship's track (when ship moves), etc.





Switch to the normal sounder display.

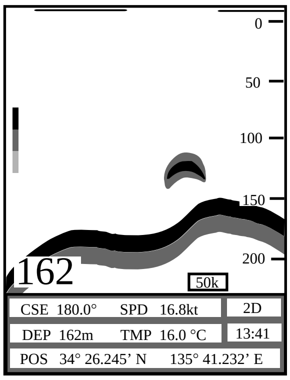
① Press the SNDR key.



Confirm that "Normal" appears in reverse video. If it does not, press ▲ to do so.

② Press the ESC key.

The sounder display shows underwater conditions.



Switch to the plotter/sounder display.

③ Press the PLTR key.

SELECT PLOTTER MODE
- ▲ **Plotter** (selected)
- Plotter/Sounder
- Data
- Graphic
- ▼ Highway

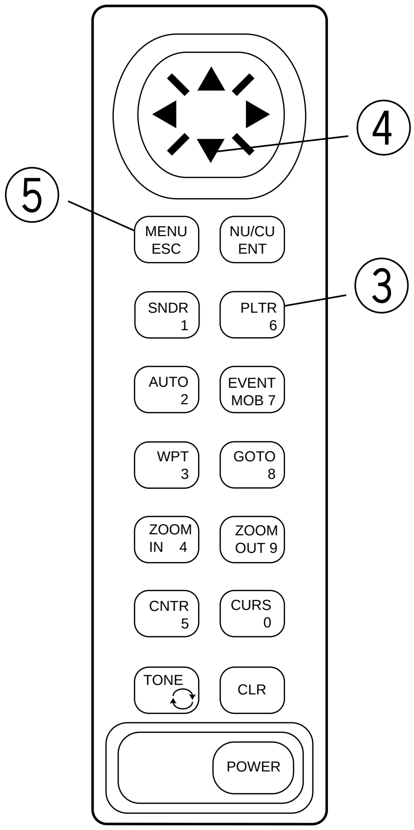
PLTR: Sel ESC: Close

④ Press ▼ to select Plotter/Sounder.

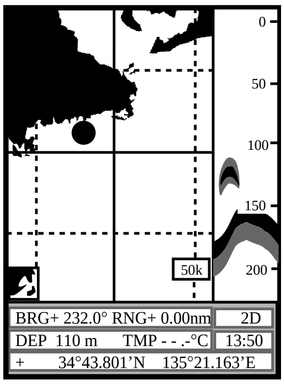
SELECT PLOTTER MODE
- ▲ Plotter
- **Plotter/Sounder** (selected)
- Data
- Graphic
- ▼ Highway

PLTR: Sel ESC: Close

⑤ Press the ESC key.



The plotter display is shown on the left 2/3 of the screen; the sounder display on the right 1/3.

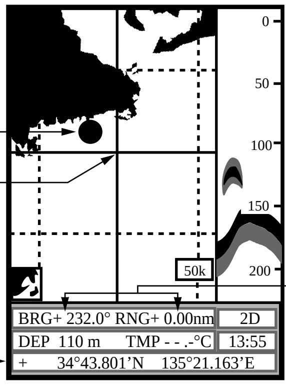


How to Use the Cursor

If the cursor is not displayed press the CURS key.

Position

Cursor intersection



Bearing and range from own ship to cursor

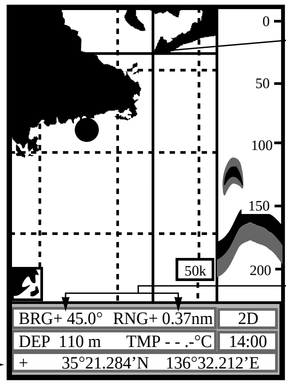
Cursor position in lattitude and longitude

Find the position of a cape.

① Press ▲▼◀ ▶.

Cursor position is digitally displayed on the screen.

Cape



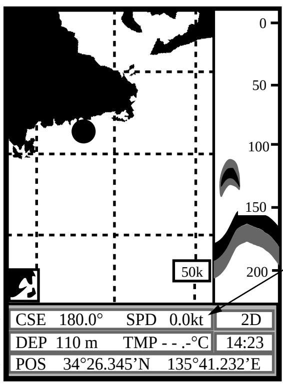
Bearing and range from own ship to cape

Latitude and longitude position of cape

Turn off the cursor.

② Press the CURS key.

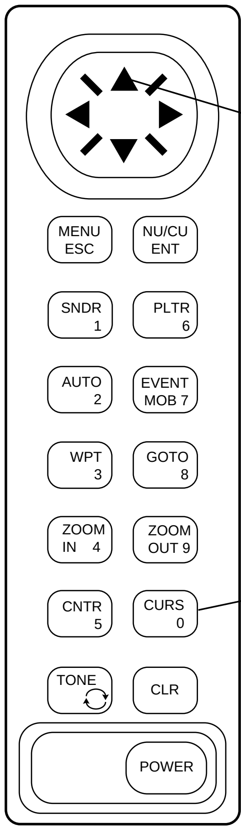
The CURS key alternately displays and erases the cursor.



Speed

Course

Position



①

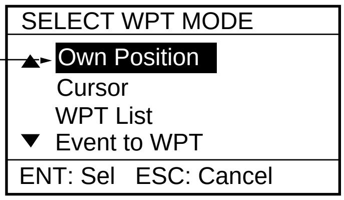
②

Registering Your Harbor

By registering your harbor as a waypoint, you can later use it as a destination waypoint, when returning home.

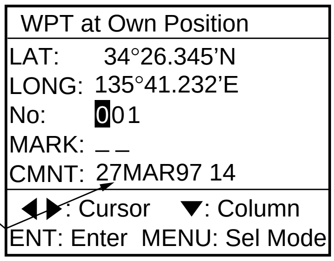
Before departing register your harbor as a waypoint.

① Press the WPT key.



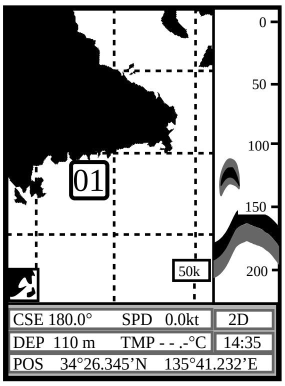
Confirm that "Own Position" is in reverse video. If it is not, press ▲ to do so.

② Press the ENT key.



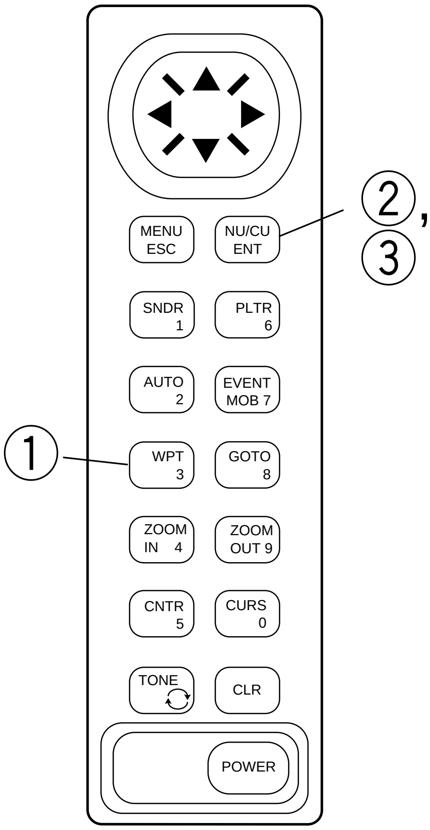
Date and time of entry appears.

③ Press the ENT key.



WPT 01 is displayed at own ship's position. Waypoints can be automatically entered in sequential order.

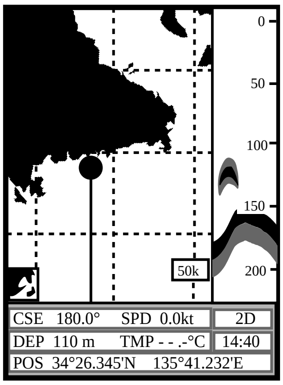
To erase a waypoint, place the cursor on it and press the CLR key.

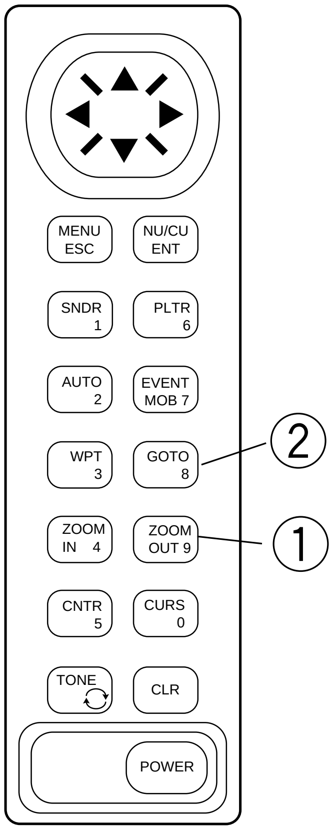


Setting Destination

When you set a destination, this unit computes the range, bearing and course to the destination. To display your destination on the screen select a small display range or scale. To set as destination a point which is 20 nm from your harbor do the following:

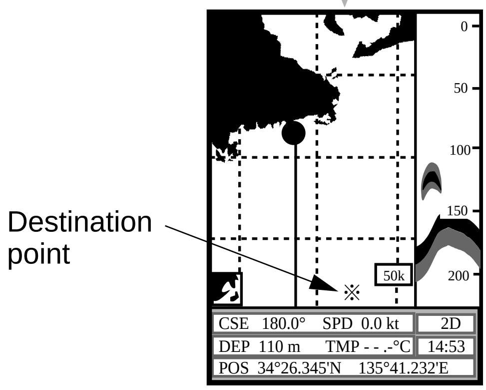
Shrink display range or scale.





① Press the ZOOM OUT key.

Press until position for destination appears.



Set point as destination.

② Press the GOTO key.

SELECT GOTO MODE
▲ WPT List
EVENT List
ROUTE List
Cursor/Route plan
ENT: Sel CLR: Release
ESC: Cancel

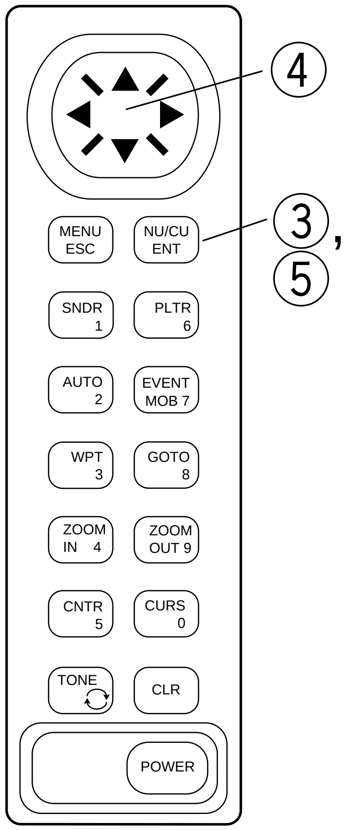
If "Cursor/Route plan" is not in reverse video, press ▼ to do so.

③ Press the ENT key.

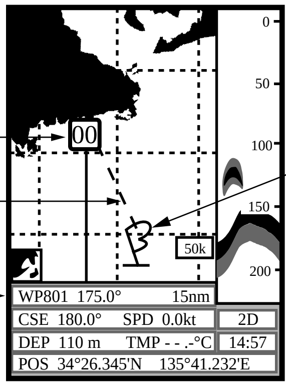
▲▼◀▶: Cursor
ENT: Set
ENT twice: complete
MENU: SEL Mode

④ Place cursor on destination.

⑤ Press the ENT key twice.



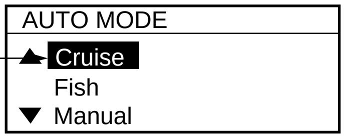
Current position is marked as "00" and the destination with a flag. A dashed line connects current position and the flag; it shows shortest course to destination. Bearing and range to the destination appear at the bottom of the screen.



Sailing for Destination

Set the sounder in the "Cruise" mode before leaving the harbor.

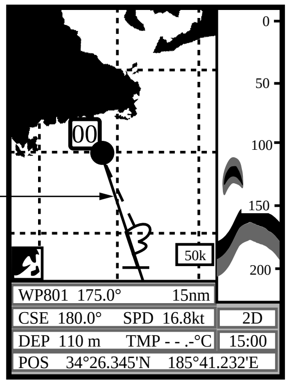
① Press the AUTO key.



If Cruise is not in reverse video press ▲ to do so. The Cruise mode suppresses weak echoes and displays strong echoes (such as the bottom) clearly.

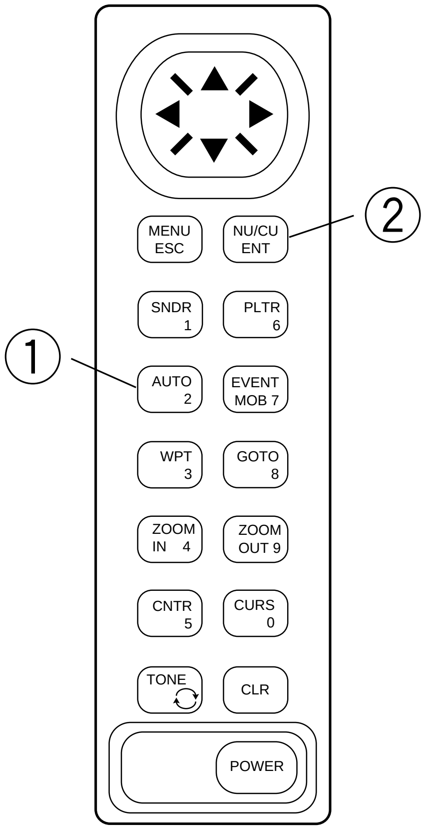
② Press the ENT key.

Steer towards destination.



Steer the boat so its track traces along the course bar, for shortest course to destination.

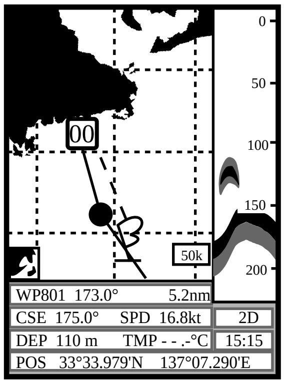
Course bar

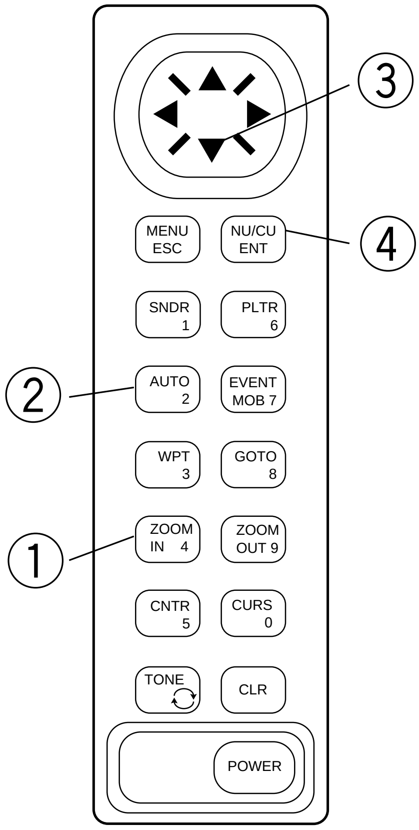


Arriving at Destination

When nearing your destination, expand the range scale and set the sounder in the "Fish mode."

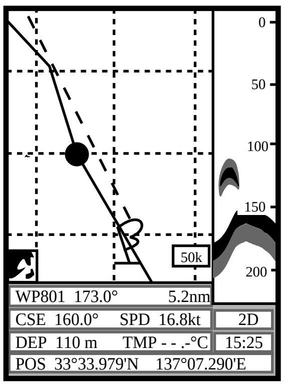
Expand the display range or scale.





① Press the ZOOM IN key.

Press the key to obtain detailed view of arrival area.



Set sounder Fish mode.

The AUTO mode displays weak echoes such as fish clearly.

② Press the AUTO key.

AUTO MODE
▲ Cruise
Fish
▼ Manual

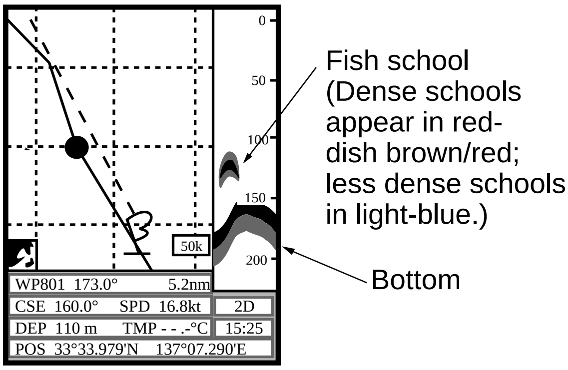
③ Press ▼ to select Fish.

④ Press the ENT key.

Searching for Fish

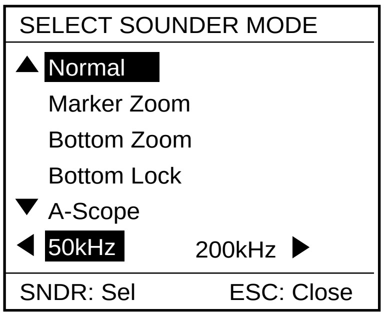
This section explains how to search for fish schools.

Use 50 kHz frequency to search area for fish. If the display shows fish echoes switch to 200 kHz to obtain detailed view.



Switch to 200kHz.

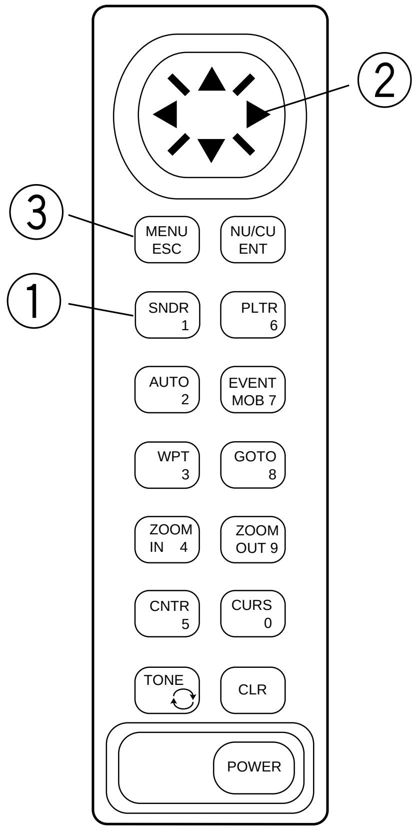
① Press the SNDR key.



To return to 50 kHz, press ◀.

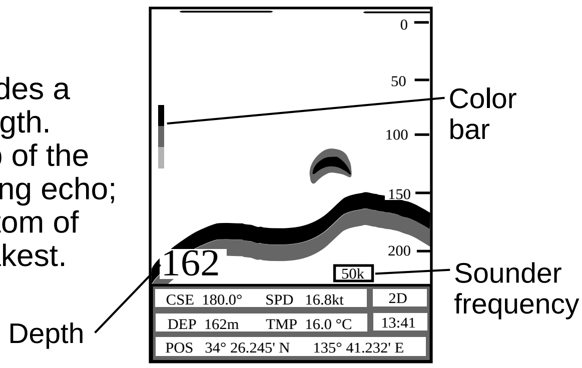
② Press the ▶ key.

③ Press the ESC key.



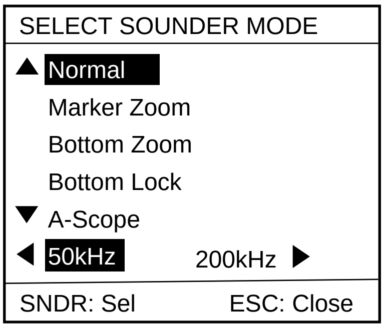
If fish echoes show at 200 kHz it is likely there are fish beneath the boat.

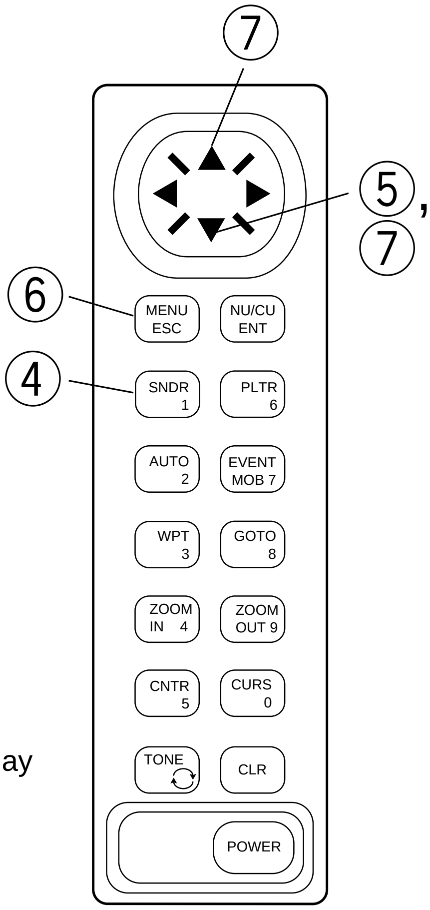
The color bar provides a guide to echo strength. The color at the top of the bar indicates a strong echo; the color at the bottom of the bar the the weakest.



Select the bottom zoom display.

④ Press the SNDR key.

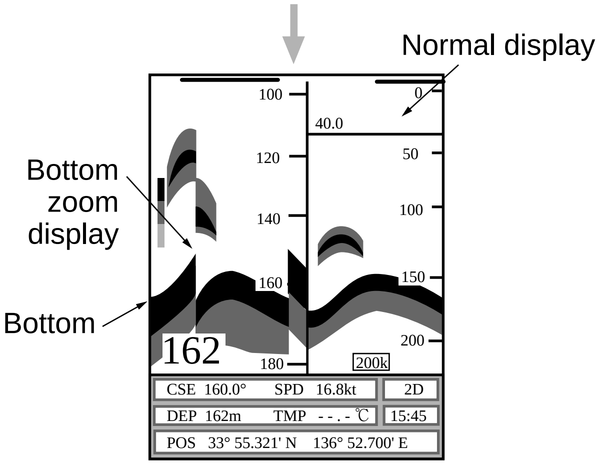




⑤ Press ▼ twice to select Bottom Zoom.

⑥ Press the ESC key.

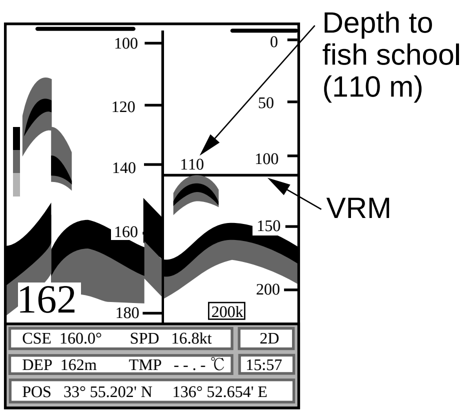
The bottom zoom display magnifies the normal display three times. It is useful for knowing bottom material and hardness.



Measure depth to fish school.

⑦ Press ▲ or ▼ to place VRM on fish school or bottom.

The VRM provides instant recognition of depth to bottom or fish.



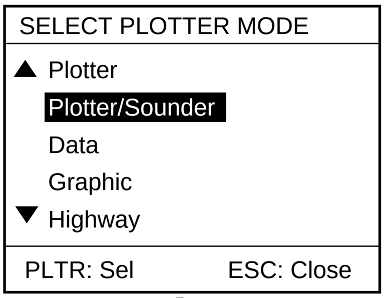
Entering Marks

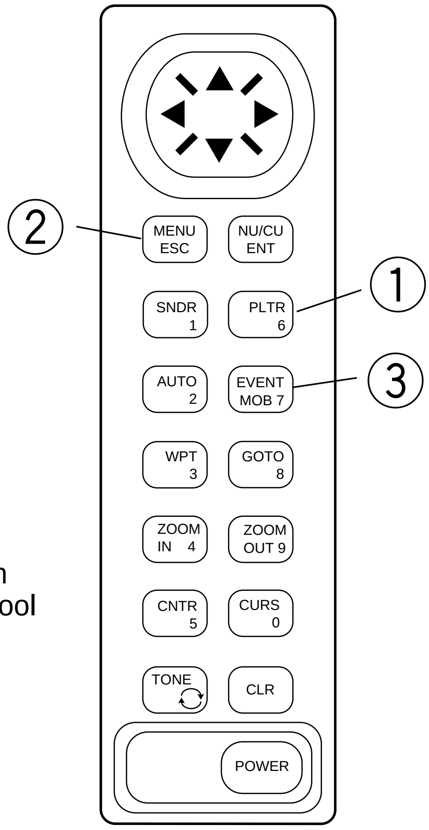
Marks may be used to denote the location of fish schools, good fishing spots, reefs, etc.

Display the plotter/sounder mode.

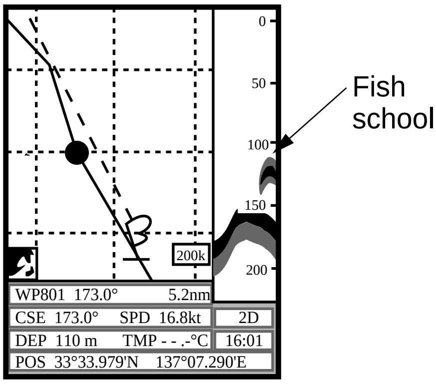
Marks cannot be entered when in a sounder mode.

① Press the PLTR key.

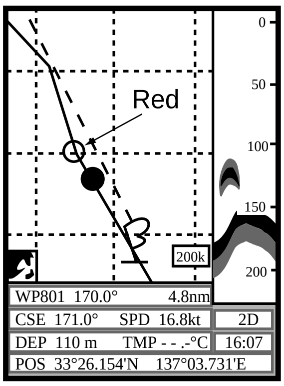




② Press the ESC key.



③ Press the EVENT key.



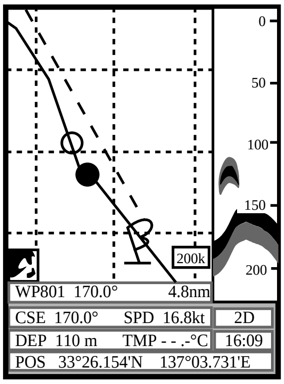
A red circle (default color and shape) appears at own ship's position the moment the key is pressed.

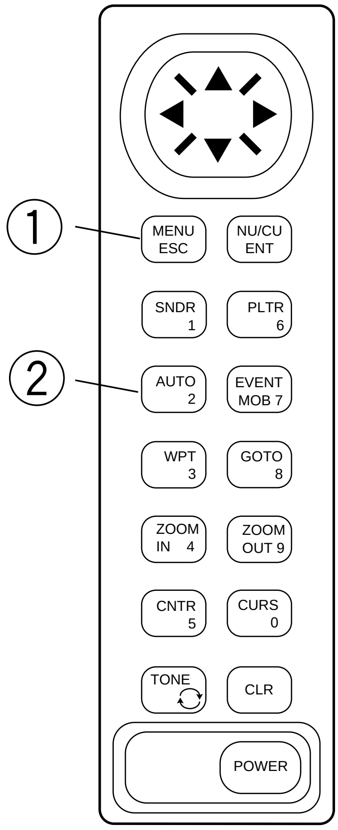
Note: When the cursor is displayed a mark is entered at the cursor position.

To erase a mark, place the cursor on it and press the CLR key.

Changing Mark Shape, Color

You may wish to display marks in different shapes and colors to differentiate between reefs and fish schools, for example. The procedure below shows how to change from red circle to green diamond.





① Press the MENU key.

MAIN MENU

1. DISPLAY SETUP
2. TRACK/MARK SETUP
3. ERASE TRACK/MARK
4. ROUTE/ROUTE LIST
5. ALARM SETUP
6. VIDEO SOUNDER SETUP
7. MEMORY SAVE/LOAD
8. CLEAR MEMORY

0. SYSTEM MENU

▲▼: Cursor ESC: Esc

② Press the [2] key.

TRACK/MARK SETUP

MARK SHAPE	◯	□	◇	×			
LINE TYPE	·	———	- - - - -	—·—·—			
MARK COLOR	RED	YEL	GRN	LBLU	PPL	BLU	WHT
TRACK COLOR	RED	YEL	GRN	LBLU	PPL	BLU	WHT
MARK SIZE	L	S					
PLOT	ON	OFF					
PLOT INTVL	TIME	DIST	AUTO				
	00'10	00.10nm					

▲▼◀▶: Cursor ESC: Esc

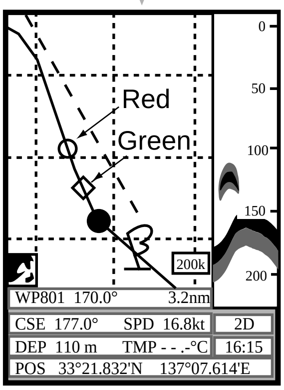
③ Press ▶ twice to select "◇".

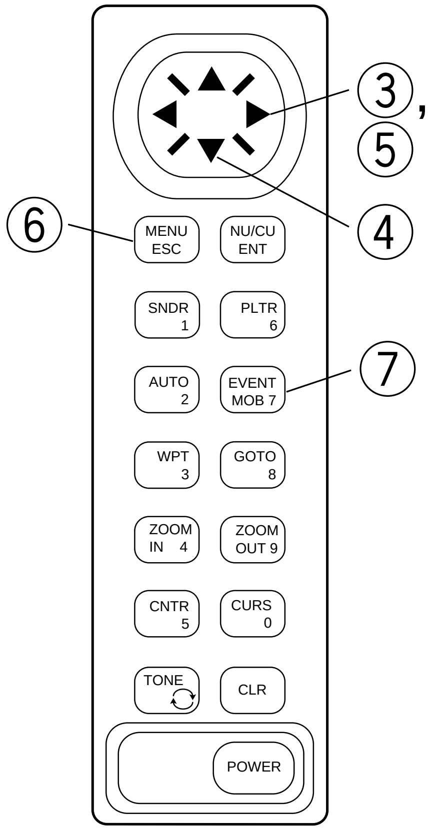
④ Press ▼ twice to select MARK COLOR.

⑤ Press ▶ twice to select GREEN.

⑥ Press the ESC key.

⑦ Press the EVENT key.





Returning to Harbor

Set your harbor as destination, and the course, range and bearing to it are displayed on the screen.

Set waypoint 01, which you entered earlier, as destination.

① Press the GOTO key.

SELECT GOTO MODE
▲ WPT List
EVENT List
ROUTE List
▼ Cursor/Route plan

ENT: Sel CLR: Release
ESC: Cancel

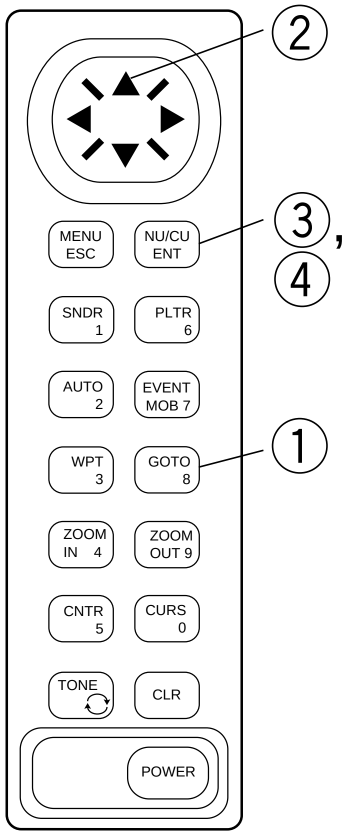
② Press ▲ three times to select WPT List.

③ Press the ENT key.

WAYPOINT LIST

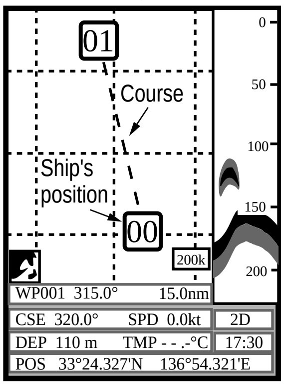
No.	LAT/LONG	COMMENT
001	34°26.345 ’ N 135°41.243’ E	970121 14
002		
003		

▲▼ : Cursor : Page
ENT: Edit CLR: Delete WPT
MENU: Sel Mode



④ Press the ENT key.

Current position is marked by "00." It is connected to destination 01 with a dashed line, which shows shortest course to destination. Range and bearing to the destination appear at the bottom of the screen.



Cancel destination; turn off the equipment.

⑤ After arriving, press the GOTO key.

SELECT GOTO MODE
▲ WPT List
EVENT List
ROUTE List
▼ Cursor/Route plan

ENT: Sel CLR: Release
ESC: Cancel

⑥ Press the CLR key.

RELEASE GOTO

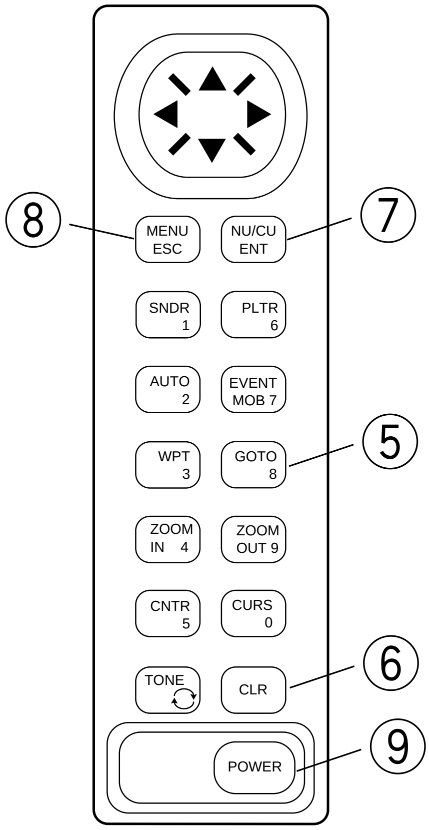
ENT: YES
ESC: NO

⑦ Press the ENT key.

⑧ Press the ESC key.

Destination is cancelled and course line disappears.

⑨ Press the POWER key.



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